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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,036	08/13/2001	Akira Yumoto	SON-1854/SOH	8706

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RADER FISHMAN & GRAUER PLLC
LION BUILDING
1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

EXAMINER

LAO, LUN YI

ART UNIT PAPER NUMBER

2673

DATE MAILED: 03/26/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,036

Applicant(s)

YUMOTO, AKIRA

Examiner

Lao Y Lun

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-165 is/are pending in the application.
4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
5) ☒ Claim(s) 14-17, 82-87, 120-125 and 149-154 is/are allowed.
6) ☒ Claim(s) 1, 2, 26-28, 32, 35-37, 42, 46, 48, 52, 55-57, 62, 66, 67, 104, 105, 142, 143 and 145 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 3-13, 18-25, 29-31, 33, 34, 38-41, 43-45, 47, 49-51, 53, 54, 58-61, 63-65, 68-81, 88-103, 106-119, 126-141, 144, 146-148 and 155-165.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-2, 26-28, 32, 35-37, 42, 46, 48, 52, 55-57, 62, 66-67, 104-105, 142-143 and 145 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation of "the capacitor is electrically isolated from driven object(display element) when the driven current is outputted to the driven object" in claims 1, 26, 46, 66, 104 and 142 is confusing since the holding voltage in the capacitor(C) is controlled the "On" or "Off" of the driven object(display element OLED) and it can not be electrically isolated from driven object when the driven current is outputted to the driven object(display element)(see figure 5).

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 2, 26-28, 32, 35-37, 42, 46, 48, 52, 55-57, 62, 66-67, 104-105, 142-143 and 145 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in

the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification fails to disclose "the capacitor is electrically isolated driven object(display element) when the drive current is outputted to the driven object(display element)" as cited in claims 1, 26, 46, 66, 104 and 142.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6. Claims 1, 2, 26-28, 32, 35-37, 42, 46, 48, 52, 55-57, 62, 66-67, 104-105, 142-143 and 145 are rejected under 35 U.S.C. 102(e) as being anticipated by Dawson et al(6,229,506).

As to claims 1, 2, 26-28, 32, 35-37, 42, 46, 48, 52, 55-57, 62, 66-67, 104-105, 142-143 and 145, Dawson et al teach a current drive circuit for driving a display comprising a control line(Select line, 210); a receiving part having a fetch use transistor(P1, 250); a signal line(Data line, 220); a converting part(250, 260, 280) having

a conversion use transistor(260) for converting a current to a voltage level and holding the same and a drive part(260, 270, 280) for converting the held voltage signal to a current signal and outputting the drive current(see figure 2; column 3, lines 11-68 and column 4, lines 1-5). Dawson et al teach the capacitor(280) is electrically isolated from the signal line(220)(see figure 2; column 3, lines 55-67 and column 4, lines 1-5).

As to claims 26, 27, 46 and 66, Dawson et al teach a pixel(290) having a receiving part for fetching the signal(current) supplied to the data line(220) when the scanning line(210) is selected(see figure 2; column 3, lines 11-68 and column 4, lines 1-5).

As to claims 2, 28, 42, 67 and 105, Dawson et al teach the converting part(250, 260, 280) having a transistor(260) with a control terminal connected to a capacitor(280); a first terminal(S) and a second terminal(D)(see figure 2).

As to claims 32, 35, 52 and 55, Dawson et al teach the converting and holding part and the drive part are the same transistor or first transistor(260)(see figure 2).

As to claims 36 and 56, Dawson et al teach a current driving circuit having a fourth transistor(240) between the first transistor(260) and the display element(290)(see figure 2).

As to claim 37 and 57, Dawson et al teach a display element(290) and the fourth transistor(240) are both connected to the first terminal(D) of the first transistor(260)(see figure 2).

As to claims 67, 105, 143 and 145, Dawson et al teach the converting part(250, 260, 280) having a conversion use insulating gate type field effect transistor(260) with a

gate , a source, a drain, and a channel and a capacitor(280) connected to the gate(see figure 2).

Allowable Subject Matter

7. Claims 14-17, 82-87, 120-125 and 149-154 are allowable.

Response to Arguments

8. Applicant's arguments filed on 2/24/2004 have been fully considered but they are not persuasive.

Applicant argues that Dowson fails disclose a capacitor that is electrically isolated from the data line and the display element on page 30. However, applicant does not disclose a capacitor that is electrically isolated from the display element. Dowson teach the capacitor(280) is electrically isolated from the signal line(220) when the transistor(P1 or 250) is off(see figure 2; column 3, lines 55-67 and column 4, lines 1-5).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dingwall(5,903,246) teaches an OLED display having a capacitor(C1) coupled to a transistor(T1 or TR1).

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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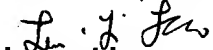
or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the Technology Center 2600 Customer Service Office
whose telephone number is (703) 306-0377.

March 20, 2004


Lun-yi Lao
Primary Examiner